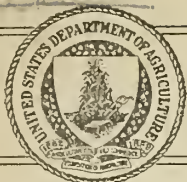


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U. S. DEPARTMENT OF AGRICULTURE
Office of Information
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WASHINGTON, D. C.

RELEASE FOR PUBLICATION
JANUARY 6, 1937 (WEDNESDAY)

THE MARKET BASKET

by

Bureau of Home Economics, U. S. Department of Agriculture

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MEAT CANNING

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Settled cold weather means slaughtering season on the farm. An outside atmosphere close to freezing helps chill the meat as the animals are killed and to keep it until it can all be taken care of by canning, curing, or eating fresh. Whether the animals on hand are beef cattle, veal calves, sheep, or pigs, the same general rules apply to canning all meats.

The Bureau of Home Economics sums up the rules in the new canning bulletin, No. 1762-F, "Home Canning of Fruits, Vegetables, and Meats", and includes specific directions for processing each kind of meat and a number of meat products and combinations. So to insure safety and an appetizing food as it comes out of the cans, send for a copy of this publication to use during ^{the} slaughtering season.

First and foremost is the requirement that only the steam pressure canner be used for processing canned meat. The water bath, the oven, and the steamer without pressure are inadequate for canning meats and cannot be used safely. If you have no pressure canner, use other methods of preservation for meats, such as curing, hard freezing, or storing in a locker in a community cold storage plant.

A number of different meat products and mixtures may be canned, especially

when there are small pieces and tidbits to be saved. The canning bulletin gives directions for such combinations as beef stew with vegetables, chili con carne, pork and beans, and various soups. But most of the meat is best canned alone. For one thing, this is more economical of can or jar space. For another, the meat is more easily combined with other foods at the time of serving, to provide greater variety. By adding different fresh crisp vegetables and different seasonings the same kind of canned meat may be made to seem different.

Use onion, garlic and spices sparingly at canning times. If wanted, more can be added when the can is opened and the meat is reheated for use. In meat products white pepper retains a better flavor than black pepper.

All meats and poultry for canning should be handled in a strictly sanitary manner. Unless the meat is to be canned at once, it is necessary to chill the carcass after slaughtering; otherwise decomposition will start within a few hours. There is little difference in flavor or tenderness of the canned product whether the meat is chilled or unchilled. Raw meat is easier to handle after chilling and may be held for a few days until convenient to can.

Chilling the meat does not mean freezing it. However, if the meat has become frozen it may be canned, but it does not make a high-quality product. Do not thaw it before canning. Cut or saw the frozen meat into uniform strips 1 to 2 inches thick and plunge at once into boiling water. Simmer until the color of raw meat has almost disappeared; then pack and process.

The preferred utensils for meat canning are made of enamelware, aluminum, retinned metal or stainless metal. Do not use copper or iron equipment as it may discolor the meat. Never allow meat to remain in contact with galvanized iron more than 30 minutes, or the meat may take up harmful quantities of zinc.

If the meat is cut on wooden surfaces such as chopping blocks or counters or in bowls, or handled with wooden spoons or mallets, use special care in cleaning to

free
the wood from bacteria. Scrub with soapy water to remove all grease and then
rinse with boiling water. If they are used for several days at a stretch they
should be disinfected with a hypochlorite solution (calcium, potassium, or sodium
hypochlorite) after scrubbing and scalding.

Use plain tin cans, sizes 2 or 2-1/2, or pint glass jars. Larger contain-
ers are not recommended for home canning.

In packing meats into containers for canning, it is particularly important
to allow head space because the meat will discolor and lose flavor if the liquid
does not cover it. Allow one-half inch head space in pint glass jars and about
three-eighths inch in No. 2 cans.

When glass jars are used, meats should be precooked in the oven or in water
before being packed in the container. When tin cans are used, the meat may be
precooked in either of these ways and packed hot, or it may be packed raw and the
cans "exhausted" before being sealed. The latter method gives a better flavored
product and the liquid is all meat juice, but it takes more time and stove space.
Frying is not recommended as a method of precooking meat for canning. It makes
the meat hard and dry and gives it a disagreeable flavor.

Add half a teaspoonful of salt to each pint jar of meat, or three-fourths
of a teaspoon to a No. 2 can. When tin cans are used place the salt in the cans
before packing them with meat.

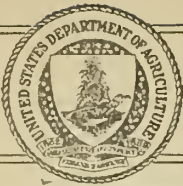
There are slight differences in the preparation of different meat cuts and
combinations of meat with other materials for canning. These are all given in the
canning bulletin. No. 2 cans and pint glass jars of beef and beef products (except
hamburger and hash), lamb and mutton, fresh pork, domestic rabbit and veal, require
85 minutes at 250° F. or 15 pounds steam pressure. Ground meats, including ham-
burger, beef hash, liver paste, head cheese and sausage require 5 minutes longer

in No. 2 cans or pint glass jars.

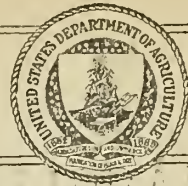
Beef heart and tongue are generally used as fresh meat, but may be canned, like other beef meat, in the broth in which they are precooked. Corned beef is often canned, with seasonings of bayleaves, clove or nutmeg in the broth. Sometimes a little gelatin, softened in cold water, is added to make a solid, easily sliced, loaf when the meat is turned out of the can. Any tested formula for pork sausage may be used when canning the sausage, except that sage should be omitted as it will give the product a bitter flavor after processing. See that the seasonings and meat are well mixed together.

Clear meat broths may be canned, or rice or barley may be added in the proportion of 1 cup of the uncooked cereal to each gallon of clear meat broth. If meat bones are cooked for a long time under steam pressure to make broth or soup stock, the broth will have a disagreeable gluey flavor. Remove excess fat from broth or soup stock before canning.

Clear broth in No. 2 cans or pint jars can be processed in 25 minutes at 15 pounds steam pressure. Broth with rice or barley requires 35 minutes, and soup stock containing small pieces of meat requires 40 minutes.



U. S. DEPARTMENT OF AGRICULTURE
Office of Information
Press Service



WASHINGTON, D. C.

RELEASED FOR PUBLICATION
JANUARY 13, 1937 (WEDNESDAY)



THE MARKET BASKET

by

Bureau of Home Economics, U. S. Department of Agriculture

THE WINTER SALAD BOWL

"Place the salad on a bed of lettuce and serve." Easier said than done in the winter time, housewives used to think when they read these directions in a cook-book. Salads could be made of cooked vegetable mixtures, of fresh or canned fruits, or of a few available raw vegetables, such as shredded cabbage, grated carrot or turnip, white or yellow, onion rings, chopped celery, parsley, or occasionally, cress. Where to get the "bed of lettuce" was the problem. Sometimes the housewife substituted a cabbage leaf or some watercress, or else she omitted the "bed" entirely.

Today we can buy lettuce right through the winter in every large city and in many a crossroads store — wherever railroads and trucks bring the fresh vegetables grown in warm climates. And the price of lettuce varies surprisingly little, summer and winter. For a fraction of a cent per leaf a family may have lettuce as the basis of the salad bowl the year around.

But not all lettuce leaves have equal nutritive values. When the Bureau of Home Economics undertook a study of the vitamin content of the green outer leaves of Iceberg lettuce, as compared with the bleached inner leaves, the results came in as a distinct surprise to a good many devotees of the salad bowl. For vitamin A the scientists found that the outer green leaves, often trimmed off

and thrown away, are, in some ways, the most valuable part of the lettuce. These deep green leaves are more than 30 times as rich in vitamin A as the pale greenish white inside leaves. But for vitamin B, the values in the Iceberg lettuce are the other way around; the bleached leaves are slightly richer. For vitamin C and vitamin G there is very little difference between the inner and outer leaves.

The moral for the housewife is to use practically all the head of lettuce, if possible. Sometimes the outer green leaves can be shredded and used in salads and sandwiches if they seem too coarse to be used whole and are likely to be left uneaten on the plate.

Our national appetite for lettuce seems to be up-and-coming. Just after the World War, in 1919, when it was still patriotic to eat plenty of fresh vegetables and salads, about 8,000 carloads of lettuce were reported. The next year, there was an increase of more than 5,000 carloads, and a similar jump in commercial production in 1921 brought the rail shipments up to 18,738 carloads. By 1936, almost 50,000 carlots of lettuce went to market.

California has always been the heaviest producer of lettuce, and Arizona in recent years has held second place. But 15 states have a place in lettuce statistics, and local farmers and home gardeners in all states contribute an uncounted quota during the growing season.

The hard-headed western types generally called "Iceberg" have become increasingly popular for their crisp texture and tender leaves. Actually there are several varieties shipped from California and Arizona, -- the New York, the Iceberg, the Los Angeles, the Wonderful, and the Imperial. They are all sold as "Iceberg" and look much alike.

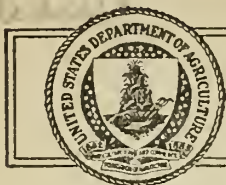
Then there are the Big Boston, a "butter" type that heads well; and the May King, and Salamander; also the romaine or cos type with long narrow stiff dark green leaves, and several non-heading sorts.



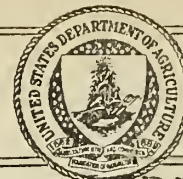
The present vogue in many homes and restaurants is away from fancy salads, back to the bowl of assorted greens mixed on the table, Continental style, with wooden fork and spoon. A tangy French dressing is generally preferred, made with two parts of oil to one of vinegar or lemon juice and seasoned to taste with salt, pepper, and paprika and maybe a dash or two of sugar and tabasco. Crumbled Roquefort cheese "tossed" with the greens and dressing gives a flavor that many men especially like.

The combination of greens need never be twice alike. Use whatever is in season -- Iceberg, Boston head, or romaine lettuce, with some crisp pungent endive or cress if available, and perhaps celery, shredded cabbage, a judicious quantity of chopped onion or its milder flavored cousin, chives, and even raw spinach. A few red radishes sliced crosswise, are a good color note, and so are thin slices of raw carrot, yellow turnip, or cooked beet. Then to the taste of some, no salad bowl turns out a mixture worth eating unless it is first rubbed inside with a clove of garlic to impart a hint of that all-pervasive tang to leaf and root as the dressing is lightly worked through them with fork and spoon.

Whatever the combination of ingredients, all the salad materials must be fresh and crisp. Wash the lettuce and other vegetables in cold water, wrap them in a cloth or put them in a covered, ventilated pan, in a cold place, until it is time to use them. Have them dry at the time of serving, or they will make the dressing watery. If the salad is served from one big bowl, do not add the dressing until the last minute. If individual salad plates are arranged beforehand, pass the dressing at the table.



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RELEASE FOR PUBLICATION
JANUARY 20, 1937 (WEDNESDAY)

THE MARKET BASKET

by

Bureau of Home Economics, U. S. Department of Agriculture

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THE CABBAGE FAMILY

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Both aristocrats and plebeians are members of the cabbage family. In the botanical directory you will find them under the name of "Brassica."

The fancied superiority of some members of this Brassica family is not justified either by their food value or their flavor, say the home economists. It's largely a matter of length of season for each one, and how common or how scarce they are, and, hence, correspondingly high or low in price. Any one of these brassicas can have a mild flavor and attractive color if it is properly cooked.

At this time of year you can find almost all the cabbage family in any large market. This includes green, white, red, and savoy or curly cabbage, collards, kale, Brussels sprouts, broccoli, cauliflower, and the two Chinese cabbage cousins, petsai and chihli, now grown in this country. Kohlrabi, or "turnip cabbage" comes on the market in early summer. In the fall, in some sections of the country, cabbage sprouts grow after the main heads have been cut off. They are used like other cabbage or greens.

Brussels sprouts, which look like cabbages in miniature, grow up the length of the plant stalk which is sometimes 30 inches long. The ^{market} season begins in September and extends through the winter until April or May but the sprouts are at the

height of their season from October to January. As they are picked by hand and are usually packed in quart or pint berry boxes, they command a higher price than cabbage. We associate Brussels sprouts with holiday menus not only because of the cost but also because of their delicate flavor and attractive appearance.

A quart basket of Brussels sprouts will make 4 or 5 servings. When of good quality these attractive little balls are firm, compact, of fresh bright appearance and good green color. When puffy-looking, they are edible, but the quality and flavor are poor. Those that are wilted or have yellowed leaves are usually old or stale. They will be wasty to prepare. In buying Brussels sprouts, avoid any indications of worm injury, or plant lice.

Cauliflower appears on the market in greatest abundance in the late summer or early fall, and is shipped from different sections of the country all winter. The amount grown varies from year to year. Last year it was not more than one-sixth of the cabbage crop. So the price of cauliflower keeps this vegetable among the more "exclusive" members of the Brassica clan unless there happens to be a season of heavy production.

Fine quality in cauliflower is indicated by a white or creamy-white, clean, heavy, firm, compact "curd" or flower head. The jacket or outer leaves which protect the head should be fresh, firm, and green. A compact, clean curd means a minimum of waste and such a head is easily prepared for cooking. The size of the head has nothing to do with maturity. Large and small heads may be equally mature.

"Riciness" is the term used to describe the granular appearance when the flowerets of cauliflower have begun to grow. It is not objectionable if not too far advanced. Yellow leaves may indicate staleness or age but are not important if the curd is otherwise of good quality. Avoid spotted, speckled or bruised curd, and the presence of plant lice.

To keep cauliflower white and mild flavored, cook it quickly in boiling water in an uncovered kettle -- 10 to 15 minutes if the flowerlets are separated, 25 to 30 if the head is left whole.

Broccoli is a member of the cabbage tribe that once commanded a high price because of its comparative scarcity. Then the Italians and French in this country who missed their broccoli, common in the old country, began growing it here. Americans took to broccoli also, and today we can buy about as much broccoli for 15 cents as used to cost 60 cents. Two to two and one-half pounds of broccoli makes 5 or 6 servings.

After trimming away the coarse leaves and fibrous portions of broccoli, split the larger stalks lengthwise, leaving some of the flower heads on each piece. Then cook for 15 or 25 minutes in lightly salted water in an uncovered pan and lift gently so as not to break off the flower heads. Hollandaise sauce is particularly good with broccoli and gives to this vegetable an air of luxury, but a simple seasoning of butter, salt, and pepper is well liked also.

Broccoli looks more like cauliflower than other members of the cabbage family, but because of its greenness it ranks as an excellent source of vitamin A--which the white cauliflower is not. Broccoli is a good source also of vitamin C but not as good as Brussels sprouts, collards, kale, kohlrabi, and cabbage. It is listed as a fair source of vitamin B and a good source of vitamin G.

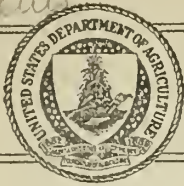
Cabbage of some kind is available the year around. Whether it is the hardheaded white winter cabbage or the green-leaved, less compact new cabbage, or the curly-leaved Savoy, or the red Danish cabbage, this supposedly plebeian vegetable is second to none in some of its nutritive values. The ordinary new green cabbage, when properly cooked, is of all the cabbage family, the most delicate in flavor. All cabbage is excellent for vitamin C when eaten raw or cooked for only the shortest possible time. When boiled for hours as in an old-fashioned "boiled dinner", cabbage was literally "cooked to death" as far as its vitamin C was concerned. The reddish brown color and disagreeable odor and flavor which develop in overcooked cabbage are due to the sulphur compounds

contained by all the members of the Brassica family. Paradoxical as it may seem, the odors from all of these vegetables are less penetrating when they are cooked uncovered and also they keep their natural green, white, or red color. Cook the shortest possible time and in very little water. Or, to save even more of the food value, pan the young cabbage in a little well-flavored fat.

Savoy or curly cabbage is very attractive stuffed. The center part is hollowed out, the shell cooked without spoiling its shape, and filled with a mixture of meat and the chopped cooked center part of the head. Sprinkle with buttered crumbs and bake until the crumbs are brown. Raw Savoy also makes a good receptacle for a cabbage salad with a whipped cream dressing seasoned with horseradish.

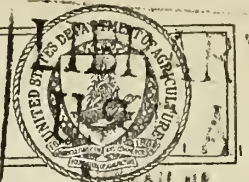
The bright color of red cabbage changes to an unattractive greyish lavender when it is cooked, unless a little acid--vinegar or lemon juice--is cooked with it. A tart apple is sometimes used, or it may be served with a sweet-sour sauce which brings back the red color.

Whether the family food budget is liberal, moderate, minimum, or restricted, some member of the cabbage family is available at all seasons and at different price ranges to fit the budget. In appearance the various cabbage cousins are so unlike that buying all the different kinds successively would give the illusion of serving quite different vegetables day after day, and all are good for vitamins, minerals, and the bulk needed in a well-regulated diet.



U. S. DEPARTMENT OF AGRICULTURE
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HOME ECONOMICS

RELEASE FOR PUBLICATION
JANUARY 27, 1937 (WEDNESDAY)

THE MARKET BASKET

by

Bureau of Home Economics, U. S. Department of Agriculture

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POTATOES AND DEEP-FAT FRYING

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Potato chips seem to be one of the "problem children" of the ready-to-eat food industry. So much so that manufacturers have lately brought their troubles to the U. S. Department of Agriculture. For years the department has been studying all phases of potato production and marketing. In finding a solution for the problems of the potato chip manufacturer and also of the restaurant operator, the investigators also have a few suggestions for the housewife interested in making potato chips.

The market for ready-to-serve potato chips grew as the crisp, easily handled, decorative slices came into use for group gatherings, party refreshments, picnics, luncheons, buffet suppers. But consumers were very definite in their demands for the kind of potato chips they wanted. The manufacturers found that chips made from northern potatoes for two or three weeks after harvest were just right. They were crisp, light yellow, and fine flavored. Then trouble began, when the potatoes, handled in the usual way, went into storage. They no longer made good chips. The color was darkened or mottled, the texture oily or flabby, and the flavor undesirable. In spite of large local crops in the north, commercial users were obliged to buy potatoes elsewhere, until the Bureaus of Plant

Industry and Home Economics undertook to study the matter.

These scientists soon put their fingers on the difficulty. They found that the temperature at which the potatoes were stored affected the potatoes and the chips made from them. Potatoes stored between 50° and 70° F. made excellent chips, and were also at their best for baking, boiling, or cooking in other ways. Below 50° F. they became increasingly undesirable because of the amount of sugar they developed. This accounted for the unpleasant sweetness of flavor and for the darkening and burning of the chips and the French fries. The family that grows its own "spuds" might take a tip from this discovery and watch the temperature of the place where the potatoes are kept.

Further interest in potato chips led the Bureau of Home Economics to look into the kinds of fats used for frying them. They made chips in nine different fats. Three were kettle-rendered lards from animals fed on peanuts, corn, and brewers' rice; one was a standard prime steam lard, another a hydrogenated (hardened) lard, a sixth hydrogenated cottonseed oil, and the other three were highly refined oils from corn, cottonseed, and peanuts.

Results showed that fat absorption in the potato chips was about the same for all the fats used. After 10 fryings, the fats were considered undesirable for further use. All the chips were fried by the same standard method.

A group of judges scored them on desirability of flavor and other points. The consensus was that peanut oil gave the most desirable flavor, and cottonseed oil next. Of the lards, the "peanut" and hydrogenated were best for frying the chips. The potato chips fried in the oils and stored in bags in the refrigerator kept fresh the longest.

The woman who makes potato chips at home may like a little detailed information on these laboratory studies of deep-fat frying. Any variety of potato that

is properly stored, between 50° and 70° F. may be used. The potatoes do not have to be pared if they are mature enough for the skin to be set. It used to be thought necessary to soak the potato slices, but the scientists now say this step is only needed if the potatoes are withered. If the potatoes are not sliced into the fat, the slices should be washed to remove surface starch and prevent them from sticking together. If they are not to be used immediately, cover with water to prevent discoloration. Prolonged soaking (1 to 2 hours) gives a crisper product but there is loss of potato flavor.

Before frying, dry the potato slices thoroughly between absorbent paper or towels. The wetter the slices are when dropped in the fat, the more rapidly the frying fat deteriorates.

The experiments showed that the high grade vegetable oils are the most satisfactory fats for frying potato chips. They are bland in flavor, have high smoking points, and give a bloom or luster to the chips that cannot be obtained with the solid fats. The temperature of the fat during the frying should range between 300° and 350° F. depending on the amount of sugar in the potatoes. The temperature of the fat where the potatoes are put in may be somewhat higher. A little experimenting will determine the best point for the potatoes being used. The chips are fried until bubbling ceases on the surface. They should then be crisp and golden yellow in color.

Filter the oil occasionally. Fine particles in the fat cause it to deteriorate more rapidly. Discard all the oil at intervals and start with fresh if a large quantity of chips is being made. Foaming, discoloration, smoking, and poor flavor of the chips show that the oil needs changing. Store the fat in a cold place away from light between fryings.

